Attachment A to Stipulated Agreement R5-2019-0511
Penalty Calculation Factors
Mt. Shasta Sanitary Sewer Collection System, Siskiyou County

This document provides details to support recommendations for enforcement in response to City of Mt. Shasta's (Discharger or City) sanitary sewer overflows (SSOs). The Central Valley Regional Water Quality Control Board (Central Valley Water Board) Prosecution Team derived the proposed administrative civil liability following the State Water Resources Control Board's (State Water Board) applicable Water Quality Enforcement Policy (Enforcement Policy). The proposed civil liability takes into account such factors as the Discharger's culpability, cooperation in returning to compliance, ability to pay the proposed liability, and other factors as justice may require.

Application of State Water Board's Enforcement Policy

On 17 November 2009, the State Water Board adopted Resolution No. 2009-0083 amending the Water Quality Enforcement Policy (2010 Enforcement Policy). The Office of Administrative Law approved the 2010 Enforcement Policy and it became effective on 20 May 2010. The 2010 Enforcement Policy establishes a methodology for assessing administrative civil liability for violations of the California Water Code (Water Code) and Federal Water Pollution Control Act (Clean Water Act). Use of the methodology incorporates Water Code sections 13327 and 13385 that require the Central Valley Water Board to consider specific factors when determining the amount of civil liability to impose, including "…the nature, circumstance, extent, and gravity of the violation or violations, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on ability to continue its business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violation, and other matters that justice may require."

The 2010 Enforcement Policy was amended, and the 2017 Enforcement Policy became effective 5 October 2017. Both the 2010 Enforcement Policy and the 2017 Enforcement Policy are used to calculate penalties for violations that occurred when each policy was effective. Additional information on both the 2010 and 2017 Enforcement Policies, including links to both policies and the penalty calculation methodology worksheet are available on the State Water Board's public website (https://www.waterboards.ca.gov/water_issues/programs/enforcement/water_quality_enforcement.shtml).

Violations occurring on or after 5 October 2017, the effective date of the 2017 Enforcement Policy, are considered under the 2017 Enforcement Policy. Violations that occurred prior to 5 October 2017 are considered under the 2010 Enforcement Policy. The SSOs included in this penalty calculation occurred between 27 October 2014 and 1 January 2018.

Regulatory Basis for Alleged Violations and Proposed Liability

The Discharger is required to comply with the State Water Board's *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ* (Statewide General Order) because it is a municipality that owns or operates a sanitary sewer collection system greater than one mile in length. The Discharger has been enrolled in the Statewide General Order since 2006. Prohibition C.1. of the Statewide General Order provides "[a]ny SSO [sanitary sewer overflow] that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited."

On 15 separate occasions since 27 October 2014, the City discharged untreated domestic and municipal wastewater from its collection system to surface water. The Prosecution Team alleges that the Discharger violated Prohibition C.1 of the Statewide General Order and section 301 of the Clean Water Act by discharging untreated domestic and municipal wastewater to surface water without a National Pollutant Discharge Elimination System (NPDES) permit between the dates of 27 October 2014 and 1 January 2018.

Pursuant to Water Code section 13385, subdivision (a), a discharger who violates section 301 of the Clean Water Act is subject to administrative civil liability pursuant to Water Code section 13385, subdivision (c), in an amount not to exceed the sum of $10,000 per day of violation and $10 per gallon of waste discharged over 1,000 gallons but not cleaned up.

Penalty Calculation Methodology Procedural Steps

Both the 2010 and 2017 Enforcement Policies establish a methodology for determining administrative civil liability by addressing the factors that are required to be considered under Water Code section 13385(e). Each factor of the nine-step approach is discussed below, as is the basis for assessing the corresponding score. Steps 1 through 5 are discussed for each violation and then followed by steps 6 through 9 for all violations.

Violation 1: Category 1 SSO OCCURING BETWEEN 2 JANUARY 2017 AND 12 JANUARY 2017

Though each of the 15 SSOs constitute separate violations of the Statewide General Order and the Clean Water Act, for purposes of determining administrative civil liability, the SSOs are analyzed as four different violations. Violation 1 contains a narrative explanation of how the factors were chosen and the remaining violations contain summary tables. On 11 January 2017, the Discharger notified Central Valley Water Board staff of a sanitary sewer overflow of raw sewage into Cold Creek, a tributary to the Sacramento River, and a Water of the United States. On 3 January 2017, City staff identified the wastewater treatment plant (WWTP) showed influent flows lower than

expected, starting on 2 January 2017. After verifying the influent flowmeter to the WWTP was working correctly, City staff began conducting manhole surveys throughout the collection system to identify the location of a possible spill or overflow. The location of the spill was identified on 11 January 2017.

The cause of the spill was severe erosion to the bank of Cold Creek that caused a tree to fall onto a suspended sewer pipe crossing Cold Creek. As a result, the sewer pipe was sheared off on both the upstream and downstream side of the pipe crossing, causing sewage to discharge directly into Cold Creek. Since untreated wastewater reached a surface water, this spill was categorized as a category 1 SSO.

Upon locating the spill, the Discharger contacted a contractor to obtain temporary pumping equipment to bypass flows around the damaged section of pipe. Measures to bypass 100% of the flow were completed at 1245 on 12 January 2017. The pipe crossing was repaired 17 January 2017 and the temporary bypass pumping was removed.

The Discharger collected water samples from 12 January 2017 to 3 February 2017 at one upstream and four downstream locations to determine the impact of the SSO. The samples were analyzed for ammonia, total coliform, and fecal coliform. Sampling was discontinued when Central Valley Water Board staff and Siskiyou County (County) officials determined there were no longer any human health risks.

The Discharger submitted a technical report to Central Valley Water Board staff on 16 February 2017 describing the spill, the City's response, spill volume estimation, sampling results, and public notification. The Discharger estimates that 2,690,000 gallons of diluted wastewater were discharged between 2 January 2017 and 12 January 2017. The Discharger states that 1,340,000 gallons of the total spill volume was undiluted wastewater (i.e., less inflow and infiltration from rain events).

Step 1 – Potential for Harm for Discharge Violations

The "potential harm to beneficial uses" factor considers the harm that may result from exposure to the pollutants in the illegal discharge, while evaluating the nature, circumstances, extent, and gravity of the violation(s). A three-factor scoring system is used for each violation or group of violations: (1) the potential for harm to beneficial uses; (2) the degree of toxicity of the discharge; and (3) whether the discharge is susceptible to cleanup or abatement.

Factor 1: Harm or Potential Harm to Beneficial Uses.

A score between 0 and 5 is assigned based on a determination of whether the harm or potential for harm to beneficial uses ranges from negligible (0) to major (5). During the 2-12 January 2017 incident, raw sewage was discharged to Cold Creek, a tributary to the Sacramento River, and a Water of the United States. The designated beneficial uses of the Sacramento River from its source to Box Canyon Reservoir that could be

impacted by the unauthorized discharge include irrigation supply, stock watering, contact and non-contact recreation, cold freshwater habitat, and wildlife habitat.

Raw sewage, containing pathogens, nitrogen, ammonia, and biological oxygen demand impacts cold freshwater habitat and wildlife habitat because fish are highly sensitive to even small concentrations of ammonia. In addition, raw sewage, adversely impacts contact and non-contact recreation because it contains pathogens which adversely effect human health.

On 12 January 2017, the day the discharge was stopped, the Discharger began collecting water samples upstream and downstream of the spill. Results of the 12 January 2017 sample are shown in the table below. Additional data was collected at further downstream locations and is included in the Discharger's 16 February 2017 technical report. Based on the analytical results, the spill influenced the water quality at downstream locations. Later sample results indicate that the downstream conditions improved shortly after the spill stopped, as heavy flows in Cold Creek washed out the raw wastewater.

Constituent	Upstream	Downstream #1	Downstream #2
Total coliform organisms, MPN/100 mL	800	160,000	30,000
Fecal coliform organisms, MPN/100 mL	500	160,000	11,000
Ammonia –N, mg/L	0	0.64	0.14

Based on the analytical data provided by the Discharger, the spill resulted in at least a moderate potential harm to beneficial uses. "Moderate" is defined as "impacts are observed or reasonably expected and impacts to beneficial uses are moderate and likely to attenuate without appreciable acute or chronic effects." Therefore, a score of **3**, moderate, is assigned for this factor.

Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge.

A score between 0 and 4 is assigned based on a determination of the risk or threat of the discharged material. "Potential receptors" are those identified considering human, environmental, and ecosystem exposure pathways. In this case, the sanitary sewer overflow was raw sewage, and as such is known to contain highly elevated concentrations of coliform organisms, biochemical oxygen demand, and ammonia.

Raw sewage spilled directly to Cold Creek. Discharges of sewage to surface water must typically be treated to a high standard to prevent adverse impacts to aquatic life. Toxicity is the degree to which a substance can damage a living or non-living organism. Toxicity can refer to the effect on a whole organism, such as an animal, bacterium, or plant, as well as the effect on a substructure of the organism, such as a cell or an organ.

In this case, the discharge consisted of raw sewage, which contains pathogens, nitrogen, ammonia, and biological oxygen demand. Fish are highly sensitive to even small concentrations of ammonia.

Elevated levels of these constituents can lead to low dissolved oxygen in the receiving water, impacts to aquatic life, and impacts to human health. Because the discharged material possesses "an above-moderate risk or a direct threat to potential receptors," a score of **3** was assigned for this factor.

Factor 3: Susceptibility to Cleanup or Abatement.

A score of 0 is assigned for this factor if 50% or more of the discharge is susceptible to cleanup or abatement. A score of 1 is assigned if less than 50% of the discharge is susceptible to cleanup or abatement. This factor is evaluated regardless of whether the discharge was actually cleaned up or abated by the discharger. In this case, the Discharger did not clean or abate any of the sewage discharged to Cold Creek. Therefore, a score of **1** was assigned to this factor.

Final Score – "Potential for Harm"

The scores of the three factors are added to provide a Potential for Harm score for each violation or group of violations. In this case, **a final score of 7** was calculated. The total score is then used in Step 2, below.

Step 2 – Assessment for Discharge Violations

This step addresses administrative civil liabilities for the spill based on both a per-gallon and a per-day basis.

1. Per Gallon Assessment for Discharge Violation

When there is a discharge, the Central Valley Water Board is to determine an initial liability amount on a per gallon basis using the Potential for Harm score and the Extent of Deviation from Requirement of the violation.

The Potential for Harm Score was determined in Step 1, and is 7. In this case, the Central Valley Water Board finds the Extent of Deviation from Requirement is "major." The Statewide General Order prohibits any SSO that results in a discharge of raw sewage to waters of the United States. Table 1 of the 2010 Enforcement Policy (p. 14) is used to determine a "per gallon factor" based on the total score from Step 1 and the level of Deviation from Requirement. For this particular case, the factor is 0.31. This value of 0.31 is multiplied by the volume of discharge and the days of discharge, as described below.

The 2010 Enforcement Policy allows for a reduction from the maximum penalty amount of $10 per gallon when the discharge is considered high volume. The 2-12 January 2017 spill incident discussed in this violation was 2,690,000 gallons and is considered

"high volume" based on the total gallons discharged. Therefore, the Prosecution Team has determined that a reduction to $2 per gallon is appropriate in this case.

Water Code section 13385(c)(2) states that the civil liability amount is to be based on the number of gallons discharged but not cleaned up, over 1,000 gallons for each spill event. Of the 2,690,000 gallons spilled, a total of 2,689,000 gallons were discharged in excess of 1,000 gallons into waters of the United States.

The Per Gallon Assessment is as follows: 0.31 factor from Table 1 x 2,689,000 gallons x $2 per gallon = $1,667,180

2. Per Day Assessment for Discharge Volume

When there is a discharge, the Central Valley Water Board is to determine an initial liability amount on a per day basis using the same Potential for Harm and the Extent of Deviation from Requirement that were used in the per-gallon analysis. The "per day" factor (determined from Table 2 of the 2010 Enforcement Policy) is 0.31. The spill event took place over 11 days, commencing on 2 January 2017 and stopping on 12 January 2017 at 1245 hours. The liability is calculated as the per day factor multiplied by the number of days multiplied by the statutory maximum per day ($10,000).

The Per Day Assessment is as follows: 0.31 factor from Table 2 x 11 days x $10,000 per day = $34,100

Initial Liability Amount: The value is determined by adding together the per gallon assessment and the per day assessment. For this case, the total is $ 1,667,180 + $34,100 for a total initial liability amount of $1,701,280.

Step 3 – Per Day Assessment for Non-Discharge Violation

The 2010 Enforcement Policy states that the Board shall calculate an initial liability for each non-discharge violation. In this case, this factor does not apply because this violation is related to the discharge of raw sewage water, and the liability was determined in Step 2.

Step 4 – Adjustment Factors

There are three additional factors to be considered for modification of the amount of initial liability: the violator's culpability, efforts to clean-up or cooperate with regulatory authority, and the violator's compliance history. After each of these factors is considered for the violations involved, the applicable factor should be multiplied by the proposed amount for each violation to determine the revised amount for that violation.

Culpability

Higher liabilities should result from intentional or negligent violations as opposed to accidental violations. A multiplier between 0.5 and 1.5 is to be used, with a higher

multiplier for negligent behavior. The 2-12 January 2017 discharge event resulted from erosion caused from sustained rain and the City's negligence in assessing potential threats to the pipeline crossing Cold Creek before the winter weather. In addition, the source of the discharge was not identified until 10 days after the spill likely started. If the Discharger had conducted routine inspections to identify potential threats to the pipeline crossing, the spill may have been avoided. In addition, if the Discharger began searching for a leak soon after flows to the WWTP were confirmed as lower than normal, especially considering the flows should have been higher due to inflow and infiltration, the spill location would have been identified earlier and resulted in significantly less volume spilled.

Therefore, a multiplier value of **1.2** is appropriate.

Cleanup and Cooperation

This factor reflects the extent to which a discharger voluntarily cooperated in returning to compliance and correcting environmental damage. A multiplier between 0.75 and 1.5 is to be used, with a higher multiplier when there is a lack of cooperation.

Once the leak was identified, after 10 days of continuous discharge, the Discharger cooperated by taking action and contacting the Central Valley Water Board to visit the site and help assess the situation. Receiving water samples were collected, the appropriate County officials were identified, and public notices were posted. The Discharger completed a temporary bypass to stop the spill the next day and repairs were completed to the best of the Dischargers' capabilities by 17 January 2017. The total cost for bypass pumping, repairs, engineering, and sampling was in excess of $68,000, which represents a significant cost to a small, disadvantaged community. The Discharger responded to the spill in the manner that was expected and reasonable.

Therefore, a multiplier value of **1.0** is appropriate.

History of Violations

When there is a history of repeat violations, the 2010 Enforcement Policy requires a minimum multiplier of 1.1 to be used. The Discharger has been assessed mandatory minimum penalties (MMPs) for violations of its effluent limitations as recently as 2016. Therefore, the Discharger has a history of violations and a multiplier value of **1.1** is appropriate.

Step 5 - Determination of Total Base Liability Amount

The Total Base Liability is determined by applying the adjustment factors from Step 4 to the Initial Liability Amount determined in Step 2.

Total Base Liability Amount: This value is determined by applying the adjustment factors from Step 4 to the Initial Liability Amount determined in Step 2.

Total Base Liability Amount, Violation 1

$1,701,280 x 1.2 x 1.0 x 1.1 = $2,245,690
Total Base Liability Amount, Violation 1 = $2,245,690

Summary of steps 1-5 for Violation 1

The following table summarizes the values assigned to penalty factors included in steps

Steps 1-5 of the 2010 Enforcement Policy methodology are summarized in the following table for Violation 1.

PENALTY FACTOR	VALUE	DISCUSSION
Harm or potential for harm to beneficial uses	3	The untreated sewage entered Cold Creek, a tributary to the Sacramento River, which has identified beneficial uses including wildlife habitat and contact and non-contact recreation.
Physical, chemical, biological, or thermal characteristics of the discharge	3	Untreated sewage contains elevated concentrations of coliform organisms and other substances which are known to cause disease to humans and harm to aquatic life. Because the discharged material possessed “an above moderate risk or a direct threat to potential receptors”, a score of 3 was assigned for this factor.
Susceptibility to cleanup or abatement	1	None of the discharged raw sewage was recovered.
Per gallon and per day factor for discharge violations	0.31	The “Deviation from Requirement” is “major” because the Statewide General Order prohibits any SSO that results in a discharge of raw sewage to waters of the United States.
Volume discharged minus 1,000 gallons per event	2,689,000 gallons	According to the Discharger, 2,690,000 gallons were discharged to surface water and not recovered. The total volume, minus 1,000 gallons per event, is used in the calculation.
Adjustment for high volume discharges	Yes, $2/gallon	For large volume spills, the 2010 Enforcement Policy allows a reduction from the statutory maximum of $10/gallon and suggests $2/gallon for sewage spills.
Per gallon penalty	$1,667,180	The liability is calculated as per day factor multiplied by the number of gallons multiplied by $2/gallon.

PENALTY FACTOR	VALUE	DISCUSSION
Days of discharge	11 days	Untreated sewage was discharged to Cold Creek between 2 January 2017 and 12 January 2017.
Per day penalty	$34,100	The liability is calculated as per day factor multiplied by the number of days multiplied by the statutory maximum per day ($10,000).
Initial Liability for Violation #1	$1,701,280	Sum of the per-gallon and per-day penalties.
Adjustments for Discharger Conduct		
Culpability	1.2	The 2-12 January 2017 spill event resulted from erosion caused from sustained rain and negligence in assessing potential threats to the pipeline crossing Cold Creek before the winter weather and was not identified until 10 days after the spill likely started. If the Discharger had conducted routine inspections to identify potential threats to the pipeline crossing, the spill may have been avoided. In addition, if the Discharger began searching for a leak soon after flows to the WWTP were confirmed as lower than normal, especially considering the flows should have been higher due to inflow and infiltration, the spill location would have been identified earlier and resulted in significantly less volume spilled. These considerations serve to increase the culpability factor above a neutral multiplier.
Cleanup and Cooperation	1.0	The Discharger appears to have adequately responded to the spill event once discovered. The Discharger was not able to recover the sanitary sewer spill, since it had already flowed into the creek.
History of Violations	1.1	The Discharger has a history of violations for which the Central Valley Water Board has taken enforcement. Therefore, a 1.1 is assigned.
Total Base Liability for Violation #1	**$2,245,690**	The base liability is calculated as the initial liability multiplied by each of the above three factors.

Violation 2: Category 1 SSO OCCURING 8 JANUARY 2017

At approximately 0820 on 8 January 2017, the Discharger received a call from a citizen that the sewer was overflowing from a manhole at the intersection of Alma Street and

North Mt. Shasta Boulevard. City staff arrived on site at 0835 and confirmed the spill to be a category 1 SSO since the spill entered a storm drain approximately 20 feet away. Since there were recent storm events, the storm drain conveyed the spill to surface water that eventually joins a tributary to the Sacramento River.

The cause of the spill was insufficient capacity in the sewer line due to heavy inflow and infiltration from recent storm events and heavy gravel, debris, and areas of root intrusion in the sewer line segment.

Upon confirming the spill, the Discharger contacted a contractor to obtain temporary pumping equipment to bypass flows around the sewer line segment that restricted flow. Measures to bypass 100% of the flow were completed at 1745 the same day. The sewer main was flushed and inspected and one of the manholes that was bypassed by temporary pumping was inspected and cleaned. Two areas of the sewer line with root intrusion were repaired.

The Discharger collected water samples from 9 January 2017 to 13 January 2017 at one upstream and two downstream locations to determine any impact of the SSO. The samples were analyzed for ammonia, total coliform, and fecal coliform Sampling was discontinued when Central Valley Water Board staff and County officials determined there were no longer any human health risks.

The Discharger submitted a technical report on 25 January 2017 describing the discharge, the City's response, spill volume estimation, sampling results, and public notification. The Discharger estimated that 88,030 gallons of wastewater were discharged to Waters of the United States on 8 January 2017.

Summary of steps 1-5 for Violation 2

The following table summarizes the values assigned to penalty factors included in steps 1-5 of the Enforcement Policy methodology for Violation 2.

PENALTY FACTOR	VALUE	DISCUSSION
Harm or potential for harm to beneficial uses	3	The untreated sewage entered a storm drain that eventually joins a tributary to the Sacramento River. Beneficial uses for the relevant portion of the Sacramento River are discussed in Violation 1.
Physical, chemical, biological, or thermal characteristics of the discharge	3	A score of 3 was assigned for this factor for the same reasons as discussed in Violation 1.

PENALTY FACTOR	VALUE	DISCUSSION
Susceptibility to cleanup or abatement	1	None of the spill was recovered. Therefore, a score of 1 is assigned for this factor.
Per gallon and per day factor for discharge violations	0.31	The "Deviation from Requirement" is "major" for the same reasons as discussed in Violation 1.
Volume discharged minus 1,000 gallons per event	87,030 gallons	According to the Discharger, 88,030 gallons were discharged to surface water and not recovered. The total volume, minus 1,000 gallons per event, is used in the calculation.
Adjustment for high volume discharges	Yes, $2/gallon	For large volume spills, the 2010 Enforcement Policy allows a reduction from the statutory maximum of $10/gallon and suggests $2/gallon for sewage spills.
Per gallon penalty	$53,959	The liability is calculated as per day factor multiplied by the number of gallons multiplied by $2/gallon.
Days of discharge	1 day	Untreated sewage was discharged to a storm drain on 8 January 2017.
Per day penalty	$3,100	The liability is calculated as per day factor multiplied by the number of days multiplied by the statutory maximum per day ($10,000).
Initial Liability for Violation #2	$57,059	Sum of the per-gallon and per-day penalties.
Adjustments for Discharger Conduct		
Culpability	1.0	The 8 January 2017 spill event resulted from insufficient capacity caused by recent storm events and blockages in the sewer line. Heavy rainfall occurred near the spill area site that contributed to the insufficient capacity. In addition, the City identified this section of the collection system as a known bottleneck and previously completed design in anticipation for replacing this section of pipe when construction funds are available. However, blockages in the sewer line, including root intrusion, were present and could have been repaired before anticipated rainfall to prevent this SSO. Therefore, a neutral multiplier is appropriate.
Cleanup and Cooperation	1.0	The Discharger appears to have adequately responded to the spill event once discovered. The Discharger was not able to recover the sanitary sewer spill, since it had already flowed into the storm drain.

PENALTY FACTOR	VALUE	DISCUSSION
History of Violations	1.1	The Discharger has a history of violations for which the Central Valley Water Board has taken enforcement. Therefore, a 1.1 is assigned.
Total Base Liability for Violation #2	**$62,765**	The base liability is calculated as the initial liability multiplied by each of the above three factors.

Violation 3: Remaining Category 1 Spills Occurring from 27 October 2014 to 26 April 2017

The Statewide General Order requires the Discharger to properly manage, operate, and maintain its sanitary sewer system and ensure the system operators are adequately trained and possess adequate knowledge, skills, and abilities (Provision D.8). Between 27 October 2014 and 26 March 2017, the Discharger has attributed multiple category 1 SSOs to root intrusion, presence of debris, and capacity issues in its sanitary sewer collection system. As listed in the table below, a total of 12 spills occurred over 12 days, with a total volume discharged of 9,380 gallons discharged to surface water that eventually joins a tributary to the Sacramento River. Because each incident resulted from similar causes, they will be considered together instead of individually under this violation category. (Note that the SSOs starting on 2 January 2017 and 8 January 2017 are not included as part of this violation. In addition, the SSO that started 1 January 2018 is included in Violation 4).

Spill Start Date	Days	SSO Location	Gallons Discharged to Surface Water	Gallons Recovered from Surface Water	Gallons Not Recovered, Less 1,000 Gallons	Cause of Spill
10/27/14	1	McCloud and North B St	750	125	0	Debris-General
12/11/14	1	McCloud and Alma	1,700	300	400	Rainfall exceeded design
1/13/15	1	South A/Gaudenzio	100	50	0	Root intrusion
8/16/15	1	Merritt and South B St	250	50	0	Debris-General
10/14/15	1	McCloud and Washington	950	200	0	Root intrusion
4/5/16	1	North A St & Orem	10	0	0	Debris-General

Spill Start Date	Days	SSO Location	Gallons Discharged to Surface Water	Gallons Recovered from Surface Water	Gallons Not Recovered, Less 1,000 Gallons	Cause of Spill
4/9/16	1	McCloud Ave.	50	0	0	Debris-General
11/20/16	1	413 McCloud Ave	600	0	0	Debris-General
2/9/17	1	Alma St. Manhole # 425	4,500	0	3,500	Rainfall exceeded design
2/27/17	1	310 Old McCloud Ave	540	60	0	Debris-General
3/17/17	1	Everitt Memorial and Rockfellow	285	20	0	Root intrusion
4/26/17	1	308 E. Lake Street	600	150	0	Debris-General

Summary of steps 1-5 for Violation 3

The following table summarizes the values assigned to penalty factors included in steps 1-5 of the Enforcement Policy methodology for Violation 3.

PENALTY FACTOR	VALUE	DISCUSSION
Harm or potential for harm to beneficial uses	3	Untreated sewage was discharged to multiple locations that eventually join a tributary to the Sacramento River. Beneficial uses for the relevant portion of the Sacramento River are discussed in Violation 1
Physical, chemical, biological, or thermal characteristics of the discharge	3	A score of 3 was assigned for this factor for the same reasons as discussed in Violation 1.
Susceptibility to cleanup or abatement	1	The Discharger reported that none of the discharge was cleaned up for the spills identified in this violation. Therefore, a score of 1 is assigned for this factor.
Per gallon and per day factor for discharge violations	0.31	The “Deviation from Requirement” is “major” for all SSOs for the same reasons as discussed in Violation 1.

PENALTY FACTOR	VALUE	DISCUSSION
Volume discharged minus 1,000 gallons per event	3,900 gallons	As shown in the table above, the total volume, minus 1,000 gallons per event, is used in the calculation.
Adjustment for high volume discharges	No	No SSOs in this violation category are classified as "high volume discharges." A per gallon penalty of $10 per gallon is appropriate.
Per gallon penalty	$12,090	The liability is calculated as per day factor multiplied by the number of gallons multiplied by $10/gallon.
Days of discharge	12 days	Untreated sewage was discharged on 12 separate days between 27 October 2014 and 26 April 2017.
Per day penalty	$37,200	The liability is calculated as per day factor multiplied by the number of days multiplied by the statutory maximum per day ($10,000).
Initial Liability for Violation #3	$49,290	Sum of the per-gallon and per-day penalties.
Adjustments for Discharger Conduct		
Culpability	1.0	The City previously identified the need to complete construction projects on the sanitary sewer collection system, notably in the downtown area of the city where many of the SSOs occurred. In addition, the City identified this area as a known bottleneck and previously completed design in anticipation for replacing areas of the pipe when construction funds are available. However, many of the SSOs were caused by blockages in the sewer line, including root intrusion, and could have been repaired to prevent SSOs until construction projects begin. Therefore, this factor serves as a neutral multiplier.
Cleanup and Cooperation	1.0	The Discharger appears to have adequately responded to all spills once discovered and provided the required information and reporting requirements included in the Statewide General Order.
History of Violations	1.1	The Discharger has a history of violations for which the Central Valley Water Board has taken enforcement. Therefore, a 1.1 is assigned.

PENALTY FACTOR	VALUE	DISCUSSION
Total Base Liability for Violation #3	**$54,219**	The base liability is calculated as the initial liability multiplied by each of the above three factors.

Violation 4: Category 1 Spill Occurring 1 January 2018

A category 1 SSO occurred on 1 January 2018 caused by root intrusion in the sanitary sewer line. Since this violation occurred during after the effective date of the 2017 Enforcement Policy, the following penalty calculation factors are taken from the 2017 Enforcement Policy.

Summary of steps 1-5 for Violation 4

The following table summarizes the values assigned to penalty factors included in steps 1-5 of the 2017 Enforcement Policy methodology for Violation 4.

PENALTY FACTOR	VALUE	DISCUSSION
The degree of toxicity of the discharge	3	Untreated sewage contains elevated concentrations of total coliform organisms and other substances which are known to cause disease to humans and to adversely impact aquatic life. Because the discharged material possessed “an above moderate risk or a direct threat to potential receptors”, a score of 3 was assigned for this factor.
Harm or potential for harm to beneficial uses	3	Untreated sewage entered a storm drain that eventually joins a tributary to the Sacramento River. Beneficial uses for the relevant portion of the Sacramento River are discussed in Violation 1
Susceptibility to cleanup or abatement	1	The Discharger reported that none of the spill was recovered. Therefore, a score of 1 is assigned for this factor.
Per gallon and per day factor for discharge violations	0.41	The “Deviation from Requirement” is “major” for the same reasons as discussed in Violation 1.
Volume discharged minus 1,000 gallons per event	0 gallons	According to the Discharger, 900 gallons were discharged to surface water and not recovered. The total volume, minus 1,000 gallons per event, is used in the calculation.

PENALTY FACTOR	VALUE	DISCUSSION
Adjustment for high volume discharges	No	This SSO is not classified as a “high volume discharge”.
Per gallon penalty	$0	The liability is calculated as per day factor multiplied by the number of gallons multiplied by $10/gallon.
Days of discharge	1 day	Untreated sewage was discharged on 1 day.
Per day penalty	$4,100	The liability is calculated as per day factor multiplied by the number of days multiplied by the statutory maximum per day ($10,000).
Initial Liability for Violation #4	$4,100	Sum of the per-gallon and per-day penalties.
Adjustments for Discharger Conduct		
Culpability	1.0	The City previously identified the need to complete construction projects on the sanitary sewer collection system, notably in the downtown area of the city where this SSO occurred. In addition, the City identified this section of the collection system as a known bottleneck and previously completed design in anticipation for replacing this section of pipe when construction funds are available. However, this SSO was caused by blockages in the sewer line, including root intrusion, and could have been repaired to prevent the SSO until construction projects begin. Therefore, this factor serves as a neutral multiplier.
Cleanup and Cooperation	1.0	The Discharger appears to have adequately responded to the spill once discovered and provided the required information and reporting requirements included in the WDRs.
History of Violations	1.1	The Discharger has a history of violations for which the Central Valley Water Board has taken enforcement. Therefore, a 1.1 is assigned.
Total Base Liability for Violation #4	**$4,510**	The base liability is calculated as the initial liability multiplied by each of the above three factors.

COMBINED TOTAL BASE LIABILITY AND FACTORS APPLIED TO ALL VIOLATIONS

The total base liability is the sum of the calculated liabilities for Violations 1, 2, 3, and 4 is $2,367,184.

Step 6 - Ability to Pay and Ability to Continue in Business

The ability to pay and to continue in business factor must be considered when assessing administrative civil liabilities. If the Water Board has sufficient financial information to assess the Discharger's ability to pay the Total Base Liability or to assess the effect of the Total Base Liability on the Discharger's ability to continue in business, then the Total Base Liability amount may be adjusted downward.

In this matter, the Discharger is an ongoing entity with the ability to raise revenue to satisfy the liability proposed through the imposition of fees and taxes and there is no information presented to date that would evidence the inability to pay.

Step 7 – Other Factors as Justice May Require

If the Central Valley Water Board believes that the amount determined using the above factors is inappropriate, the amount may be adjusted under the provision for "other factors as justice may require" but only if express findings are made to justify this. Board staff has spent over 100 hours on this case, but the Prosecution Team chooses not to include these costs in the liability.

Step 8 – Economic Benefit

Pursuant to CWC section 13385(e), civil liability, at a minimum, must be assessed at a level that recovers the economic benefits, if any, derived from the acts that constitute the violation.

The Economic Benefit is calculated to be $546,477.

Final adjusted liability

The final adjusted liability is $2,367,184.

Step 9 – Maximum and Minimum Liability Amounts

The maximum and minimum amounts for discharge violation must be determined for comparison to the amounts being proposed.

Maximum Liability: Water Code maximum liability amount for Violation 1 is $27,000,000, the maximum liability amount for Violation 2 is $880,300, the maximum

liability amount for Violation 3 is $159,000, and the maximum liability amount for Violation 4 is $10,000. Therefore, the maximum liability for all violations is $28,049,300.

Minimum Liability: The minimum liability is calculated as the economic benefit plus 10%. Here, the minimum liability is $601,124.70.

Step 10 – Final liability Amount

The final liability amount consists of the added amounts for each violation, with any allowed adjustments, provided amounts are within the statutory minimum and maximum amounts. Using the Penalty Calculation Methodology, as described above, the proposed penalty is $2,367,184.